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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,895	03/14/2007	Marcel Andre		1607

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Marcel Andre
276 Rue d'Artois
Moissy Cramayel, 77550
FRANCE

EXAMINER

GIRARDI, VANESSA MARY

ART UNIT	PAPER NUMBER
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2833

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,895	Applicant(s) ANDRE ET AL.	
	Examiner Vanessa Girardi	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 24, 2008 (Response to NF).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Examiner acknowledges and appreciates the amendment filed June 24, 2008 including:

- ❑ amendments to the specification overcoming previously held objections.
- ❑ replacement figures 9-12, overcoming previously held objections.
- ❑ amended claims 2, 9 and 10, overcoming previously held objections.

Claim Objection

1. Claim 16 is examined with the understanding that the word "trough" should actually be -through-, correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 15, 17 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Spier (US 4,601,528) in view of Liegl et al. (US 2002/0173199).

With respect to claims 1-3, 5, 6, 17 and 20 Spier shows a connector **10** for a sealed connection of a flat cable arrangement **14, 12**, comprising: an external housing **46, 16**, which even in an unassembled condition of the connector and the flat cable arrangement [FIG. 1] has an insertion opening **52** which is adapted for the insertion of the end of a flat cable arrangement **12** in order to effect electrical connection [BETWEEN **14** AND **12**] at a connection area of the insertion opening **52**, sealing elements **70, 34, 36** on both sides [FIG. 3] of the flat cable arrangement **14, 12** at the connection area of the insertion opening [FIG. 3] such that it only comes into effective contact with flat cable arrangement **14, 12** when the flat cable

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arrangement **14, 12** is in an inserted condition [FIG. 2], and a device **66** for the pressurization of the dielectric elastomer sealing element **34** having a cushion form, for sealing at least the connection area of the flat cable arrangement **14, 12** in an inserted condition [COL. 6, LINES 31-34]; the flat cable arrangement comprises a flat ribbon cable **60** and a connector end.

Spier does not show the sealing elements **70, 34, 36** comprising compressed gel.

Liegl et al. teaches a solution to a similar problem wherein a compressed gel is used [0022].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the sealing element **34** of Spier using a compressed gel as taught by Liegl et al. [0022] because of a gel's ability to squeeze more completely into affected areas thereby producing a more reliable seal.

With respect to claim 4; Spier shows terminal contacts **18** arranged at the connection area of the connector for interacting with terminals **54** attached to the conductor ends of the flat cable arrangement **14, 12**.

With respect to claims 7, 8, 9; Spier shows two sealing elements **70, 36** and the pressurization device **66** wherein the sealing elements can be moved in a pincer-like movement in a direction of the upper and lower side of the flat cable arrangement **14, 12**; and are capable of moving between a position which essentially completely opens the insertion opening to the connection area [FIG. 1] and a position essentially closing the insertion opening [FIG. 2] characterized by catching or snapping means [COL. 6, LINES 31-38] associated to the pressurization device **66**.

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With respect to claim 15; Spier shows the pressurization device **66** and a housing cover **28** which closes the insertion opening **52**. Yet, Spier does not show the cover is part of the pressurization device.

Liegl et al. shows the pressurization device **2**, **3** is the connector housing cover which closes the insertion opening.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to consider a connector housing cover which serves as both the pressurization device as well as closing the insertion opening thereby providing means for visual confirmation / inspection before final assembly.

3. Claims 13, 14 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Spier (US 4,601,528) and Liegl et al. (US 2002/0173199) as applied to claim 1, and further in view of Dean et al. (US 3,333,229). Spier as modified by Liegl et al. has been discussed above. Neither Spier nor Liegl et al. show or teach a sealing element and pressurization device that can be inserted into a through hole within the connector housing after the insertion of the cable arrangement.

Dean et al. shows an analogous connector [FIG. 1] wherein the sealing element **18** and pressurization device **20** are inserted into a through hole **22** within the connector housing **10** after the cable arrangement has been inserted in the insertion opening [COL. 5, LINES 29-44], the pressurization device **20** having a slot **68** essentially corresponding to the cross-section of the flat cable arrangement **14** and through which the flat cable arrangement is guided [FIG. 2].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to consider a sealing element and pressurization device that are inserted into the opening after the flat cable arrangement as taught by Dean et al. [COL. 1, LINES 38-47] to modify the connector of Liegl et al. thereby producing a flat cable that is

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stabilized within the connector arrangement such that variations in cable thicknesses are accommodated and sealed against exposure, thus ensuring a longer service life.

Allowable Subject Matter

4. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim, any intervening claims and overcoming any applicable objections discussed above.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 10; allowability resides, at least in part, with the prior art not showing or teaching the connector having guidance devices that extend at the side of the insertion opening arrangement diagonally from above and below the flat cable arrangement in conjunction with **ALL** the remaining limitations within claims 1 and 9.

With respect to claim 11; allowability resides, at least in part, with the prior art not showing or teaching the connector having guidance and catching devices assigned to guide the pressurization device, first in a normal direction in relation to the flat cable arrangement at the connecting point and then in an axial direction in relation to the flat cable arrangement at the connecting point or vice versa in conjunction with **ALL** the remaining limitations within claims 1 and 11.

Response to Remarks

5. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Girardi: Telephone number (571) 272-5924.

Monday – Thursday 7 a.m. to 5:30 p.m. (EST)

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Renee S. Luebke can be reached on (571) 272-2009..

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VG

Art Unit 2833
September 22, 2008

/renee s luebke/

Renee Luebke
Supervisory Primary Examiner
AU 2833